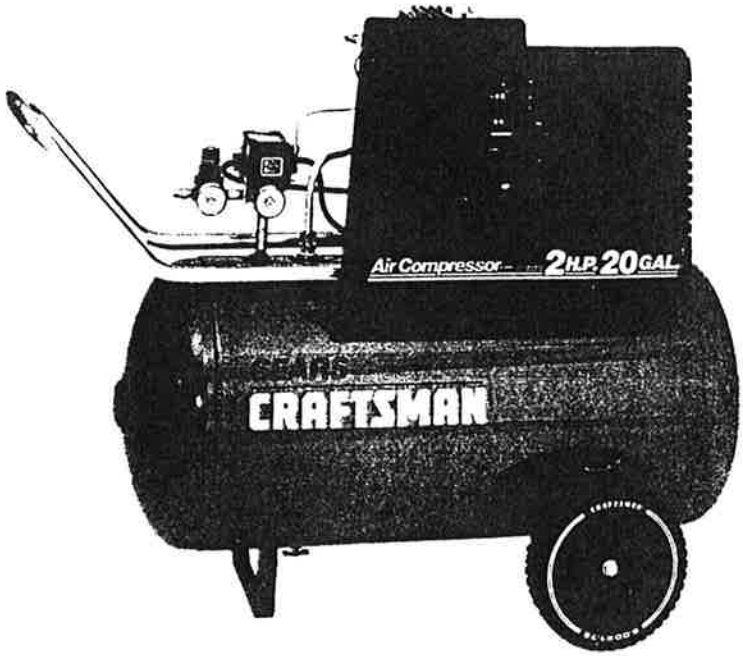
SEARS

OWNERS MANUAL

MODEL NO.
919.176120
919.176220
919.176730
919.176830

IMPORTANT:
Read the Safety Guidelines and All Instructions Carefully Before Operating



CRAFTSMAN AIR COMPRESSOR

ASSEMBLY
OPERATION
MAINTENANCE
REPAIR PARTS

Record in the spaces provided.
(1) The model number which can be found on the label on the rear of the air tank.
(2) The code number which can be found on the foil label on the rear of the air tank.
(3) The Manufacturers Number (ASME Code Compressors only) is located on the metal data plate which is welded onto the backside of the air tank. (This data plate is painted the same color as the tank.)
(4) The Motor Manufacturers name which is located on the motor label or specification plate.
(5) The Motor Mfg. number – also located on the motor label or specification plate.

Retain these numbers for future reference.

Model No. _____

Code No. _____

Mfg. No. _____

Motor Mfg. Name _____

Motor Mfg. No. _____

Sears, Roebuck and Co., Chicago, IL 60684 U.S.A.

SI-30-14-4 12/86

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FULL ONE YEAR WARRANTY ON AIR COMPRESSORS

If this air compressor fails due to a defect in material or workmanship within one year from the date of purchase, return it to the nearest Sears Service Center/Department throughout the United States and Sears will repair it, free of charge.

If this air compressor is used for commercial or rental purposes, the warranty will apply for ninety days from the date of purchase.

This warranty gives you specific legal rights and you may have other rights that vary from state to state.

Sears, Roebuck and Co., Sears Tower, Dept. 698/731A, Chicago, IL 60684

SAFETY GUIDELINES

This manual contains information that is important for you to know and understand. This information relates to protecting your safety and preventing equipment problems. To help you recognize this information, we use the following symbols. Please read the manual and pay special attention to sections headed by these symbols.

⚠ DANGER

URGENT SAFETY INFORMATION – A HAZARD THAT *WILL* CAUSE SERIOUS INJURY OR LOSS OF LIFE.

WARNING

IMPORTANT SAFETY INFORMATION – A HAZARD THAT *MIGHT* CAUSE SERIOUS INJURY OR LOSS OF LIFE.

CAUTION

Information for preventing damage to equipment.

NOTE

Information that you should pay special attention to.

WARNING

HAZARDS CAN OCCUR IF EQUIPMENT IS NOT USED PROPERLY.
PLEASE READ THE FOLLOWING CHART.

WHAT TO LOOK FOR	WHAT COULD HAPPEN	HOW TO PREVENT IT
Compressed Air	Compressed air can propel dust, dirt or loose particles it comes in contact with.	Never point any nozzle or sprayer toward a person or any part of the body. Always wear safety goggles or glasses when using the air compressor. Always turn the air compressor off and release air pressure from hose before attaching or removing accessories.
	Too much air pressure applied to air tools or accessories can cause damage or risk of bursting.	Check the manufacturer's maximum pressure rating for air tools and accessories. Regulator outlet pressure must never exceed the maximum pressure rating.

WHAT TO LOOK FOR	WHAT COULD HAPPEN	HOW TO PREVENT IT
Hot Parts	The compressor head and tubes get hot when the air compressor is running. If you touch them, you can be seriously burned.	Never touch the air compressor head or tubes during or immediately after operation.
Flammable Vapors	It is normal for the motor and pressure switch to spark when the compressor starts or stops. A spark can ignite flammable vapors from gasoline or solvents causing a fire or explosion.	Always operate the air compressor in well-ventilated areas; free of gasoline or solvent vapors.
Unsuitable Solvents	The solvents 1,1,1 – Trichlorethane and Methylene Chloride can chemically react with aluminum used in paint spray guns, paint pumps, etc., and cause an explosion. These solvents can also react with galvanized components and cause corrosion and weakening of parts. This does not affect your air compressor – but it may affect the equipment being used.	If the material you intend to spray contains the solvents listed at left (read the label or data sheet), do not use accessories that contain aluminum or galvanized parts. You must either change the material you intend to spray, or use only stainless steel spray equipment.
Electricity	Your air compressor is powered by electricity. Like any other electrically powered device, if it is not used properly it can cause electrical shock.	Always unplug the air compressor prior to maintenance or repair. Never use the air compressor outdoors when it is raining. Always plug the cord into an electrical outlet with the specified voltage and adequate fuse protection.
Moving Parts	This compressor cycles automatically when the switch is in the "On-Auto" position. If you attempt repair or maintenance while the compressor is operating, or with the switch in the "On-Auto" position, you can expose yourself to moving parts. These moving parts can cause serious injury or damage, if they come into contact with you or your clothing.	Always unplug the unit and release air pressure from the tank and any accessories before doing repair or maintenance. Never operate the compressor with the belt guard removed.
Toxic Vapors	It is normal for compressed air to contain toxic or irritating vapors. Such vapors are harmful if inhaled. Certain materials you are spraying (like paint, weed killer, sand or insecticide) can be harmful if you inhale them.	Never directly inhale the compressed air produced by this unit. Be certain to read all labels when you are spraying paints or poisons; and follow the safety instructions. Use a respirator mask if there is a chance of inhaling anything you are spraying. Read all instructions...be sure that your respirator mask will protect you.
Air Tank	Modifications to the air compressor can cause the air tank to rupture or explode. Changing the air tank will cause it to weaken. The tank can rupture or explode.	Do not adjust, remove or tamper with the safety valve or pressure switch. If safety valve or pressure switch replacement is necessary, a part with the same pressure rating must be used. Never use a motor with a higher horsepower rating than the one supplied. Do not substitute a gas engine for the motor . . . this compressor was not designed to be powered by a gasoline engine. Never replace the compressor pump with a different model. Never increase the compressor pump speed. Never drill into, weld, or in any way modify the air tank. Do not repair a leaking tank, it must be replaced. Never replace the air tank with a different model or a larger tank.

SPECIFICATION CHART

Model No.	919.176120	919.176220	919.176730	919.176830
Horsepower	2	2	3	3
Displacement CFM	9.6	9.6	11.3	11.3
Bore	2¾"	2¾"	2⅞"	2⅞"
Stroke	2"	2"	2"	2"
Voltage-Single Phase	120/240**	120/240**	120/240**	120/240**
Minimum Branch Circuit Requirement	15 amp	15 amp	15 amp	15 amp
*Fuse Type	Fusetron Type "T"	Fusetron Type "T"	Fusetron Type "T"	Fusetron Type "T"
Air Tank Capacity - Gallons	20	20 ASME	20	20 ASME
Approximate Cut-in Pressure	80	80	80	80
Approximate Cut-out Pressure	100	100	100	100
SCFM @ 40 psig	7.8	7.8	8.8	8.8
SCFM @ 90 psig	6.3	6.3	7.7	7.7
SCFM @ 100 psig	6.0	6.0	7.3	7.3
U.L. Listed	No	Yes	No	Yes

**These models have dual voltage motors, 120 and 240 volt. They are wired for 120 volt but can be converted to 240 volt operation. Instructions for connecting the motor for operation at 240 volt can be found printed on the inside of the motor cover or on the nameplate of the motor.

*A circuit breaker is acceptable. Use only a fuse or circuit breaker that is the same rating as the branch circuit the air compressor is operated on. If the air compressor is connected to a circuit protected by fuses, use dual element time delay fuses (Buss Fusetron Type "T" only).

CAUTION

These air compressors can be operated on a 15 amp circuit if:

1. **Voltage supply to circuit is normal.**
2. **Circuit is not used to supply any other electrical needs (lights, appliances, etc.)**
3. **Extension cords comply with specifications in owners manual.**
4. **Circuit is equipped with 15 amp circuit breaker or 15 amp Fuestron Type "T" time delay fuse.**

If any of the above conditions cannot be met, or if operation of the compressor repeatedly causes interruption of the power it may be necessary to operate it from a 20 amp circuit.

GLOSSARY

CFM: Cubic feet per minute.

SCFM: Standard cubic feet per minute; a unit of measure of air delivery.

PSIG: Pounds per square inch gauge; a unit of measure of pressure.

ASME: American Society of Mechanical Engineers; made, tested, inspected and registered to meet the standards of the ASME.

U.L. Listed: Underwriter Laboratories; Samples of compressor outfits, taken from production, were submitted to U.L. and found to comply with their requirements for design and performance.

Cut-In Pressure: While the motor is off, air tank pressure drops as you continue to use your accessory. When the tank pressure drops to a certain low level the motor will re-start automatically. The low pressure at which the motor automatically re-starts is called "cut-in pressure."

Cut-Out Pressure: When you turn on your air compressor and it begins to run, air pressure in the air tank begins to build. It builds to a certain high pressure before the motor automatically shuts off – protecting your air tank from pressure higher than its capacity. The high pressure at which the motor shuts off is called "cut-out pressure."

ACCESSORIES FOR USE WITH SEARS AIR COMPRESSORS

The following accessories are available through the current general sales catalog or at full-line Sears stores.

- •SPRAY GUNS
- •BLOW GUNS
- •AIR CAULKING GUNS
- •AIR POWERED WASHER GUNS
- •SAND BLASTERS
- •AIR BRUSHES
- •AIR LINE FILTERS
- •TIRE AIR CHUCKS
- •PAINT TANKS
- •AIR TANKS
- •INFLATOR KITS
- •QUICK CONNECTOR SETS (various sizes)
- •VISCOSIMETER
- •AIR PRESSURE REGULATORS
- •OIL FOG LUBRICATORS
- •AIR TOOLS:
  - Sanders
  - Drills
  - Impact wrenches
  - Hammers
- •AIR HOSE:
  - 1/4", 5/16" OR 3/8" I.D. in various lengths.

GENERAL INFORMATION

You have purchased an air compressor unit consisting of a 2 cylinder, single stage air compressor pump, an air tank, air hose, wheels, handle, air chuck and associated controls and instruments.

Your air compressor can be used for operating paint spray guns, air tools, caulking guns, grease guns, air brushes, sandblasters, power washers, inflating tires and plastic toys, spraying weed killers, insecticides, etc.

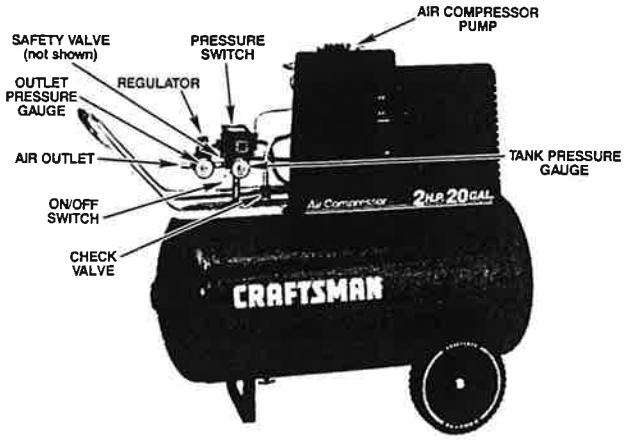
An air line filter is usually required for removal of moisture and oil vapor in compressed air when a paint spray gun is used.

An in-line lubricator is usually required for air tools to prolong tool life.

Separate air transformers which combine the functions of air regulation and/or moisture and dirt removal should be used where applicable.

These accessories can be purchased from most Sears stores or through the Sears General catalog or Power Tool catalog.

DESCRIPTION OF OPERATION



Air Compressor Pump: To compress air, the pistons move up and down in the cylinders. On the downstroke, air is drawn in through the air intake filter and then through the air intake valves. The exhaust valve remains closed. On the upstroke of the piston, air is compressed. The intake valves close and compressed air is forced out through the exhaust valve, through the outlet tube, through the check valve and into the air tank. Working air is not available until the compressor has raised air tank pressure above that required at the air outlet.

Check Valve: When the air compressor is operating, the check valve is "open", allowing compressed air to enter the air tank. When the air compressor reaches "cut-out" pressure, the check valve "closes", allowing air pressure to remain inside the air tank.

Pressure Switch: The pressure switch automatically starts the motor when the air tank pressure drops below the factory set "cut-in" pressure. It stops the motor when the air tank pressure reaches the factory set "cut-out" pressure.

Pressure Release Valve: The pressure release valve located on the side of the pressure switch, is designed to automatically release compressed air from the compressor head and the outlet tube when the air compressor reaches "cut-out" pressure or is shut off. If the air is not released, the motor will try to start, but will be unable to. The pressure release valve allows the motor to restart freely. When the motor stops running, air will be heard escaping from the valve for a few seconds. No air should be heard leaking from the valve when the motor is running.

Safety Valve: If the pressure switch does not shut off the air compressor at or near its cut-out pressure setting, the safety valve will protect against high pressure by "popping out" at its factory-set pressure (slightly higher than the pressure switch cut-out setting).

Regulator: The air pressure coming from the air tank is controlled by the regulator knob. Turn the knob clockwise to increase pressure and counterclockwise to decrease pressure. To avoid minor readjustment after

making a change in pressure setting, always approach the desired pressure from a lower pressure. When reducing from a higher to a lower setting, first reduce to some pressure less than that desired, then bring up to the desired pressure. Depending on the air requirements of each particular accessory, the outlet regulated air pressure might have to be adjusted while you are operating the accessory.

ASSEMBLY INSTRUCTIONS

Items You Will Need To Assemble Your Compressor

- 16 oz. compressor oil, Sears 9-16426 or SAE 20-20W motor oil
- pipe thread sealant
- an adjustable wrench for attaching the pressure regulator or ball valve
- a 9/16" socket or open-end wrench for attaching the wheels and hose adapter
- a 7/16" open-end wrench for attaching the air pressure gauge (not required on all models.)
- a 3/16" hex key for installing the plug in the regulator (not required on all models.)

Installing Handle, Rubber Foot strip, and Wheels

WARNING

THE WHEELS AND HANDLE DO NOT PROVIDE ADEQUATE CLEARANCE, STABILITY OR SUPPORT FOR PULLING THE UNIT UP AND DOWN STAIRS OR STEPS. THE UNIT MUST BE LIFTED OR PUSHED UP A RAMP. DO NOT LIFT THE UNIT BY THE MANIFOLD ASSEMBLY. THE UNIT CAN BE DAMAGED.

Handle Assembly Instructions

1. Insert the open end of the handle under the saddle (Fig. 1). Looking in from the open end of the saddle, position the handle towards the two bent tabs, on the inside walls of the saddle. *Slowly* push the open ends of the handle onto both tabs at the same time (Fig. 2). Continue pushing the handle into the saddle until the holes on the side of the saddle and handle are in line.
2. Grasp the hook at the end of the retaining wire. Insert the pointed end of the wire through the saddle hole (Fig. 3). Guide it through the handle holes on both sides and out the saddle hole on the belt guard side (Fig. 4). The retaining wire is meant to fit very tightly, so you may need to use some effort to push it all the way through. You may also need to move the belt guard side of the handle up and down slightly to align the hole. The pointed end of the wire must protrude out of the belt guard side of the saddle.
3. Grasp the retaining wire hook. Turn it clockwise while pushing in until the hook slips behind the saddle (Fig. 5, pg. 8). This will lock the wire in place.
4. If the handle has excessive movement, it is improperly installed. Check the following:
   A. Are both tabs inside the handle (Step #1)?
   B. Does the pointed end of the wire protrude out of the belt guard side of the saddle (Step #2)?

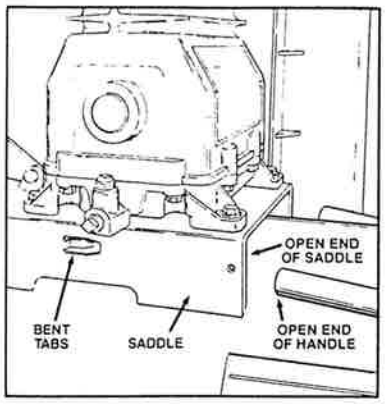


FIG. 1

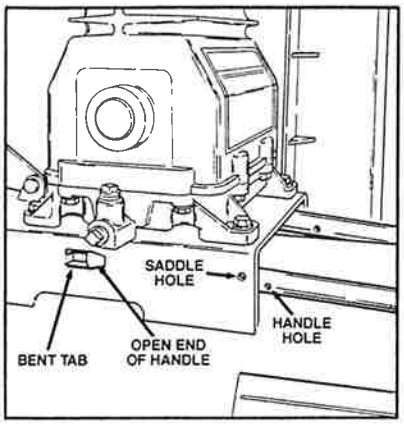


FIG. 2

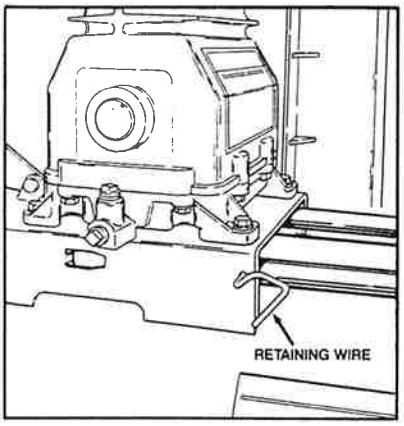


FIG. 3

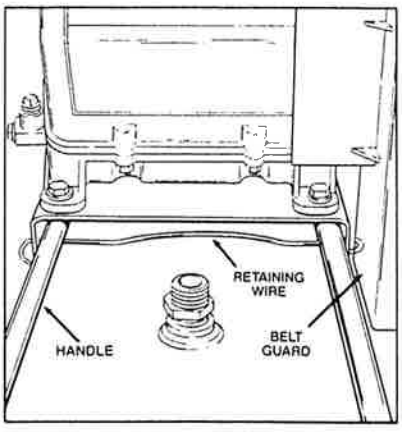
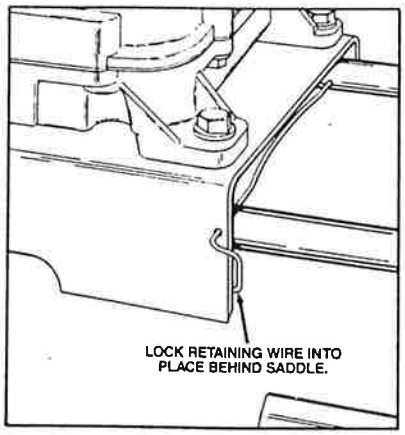


FIG. 4

Fig. 5



CAUTION

It may be necessary to brace or support one end of the outfit when attaching the wheels because the air compressor will have a tendency to tip.

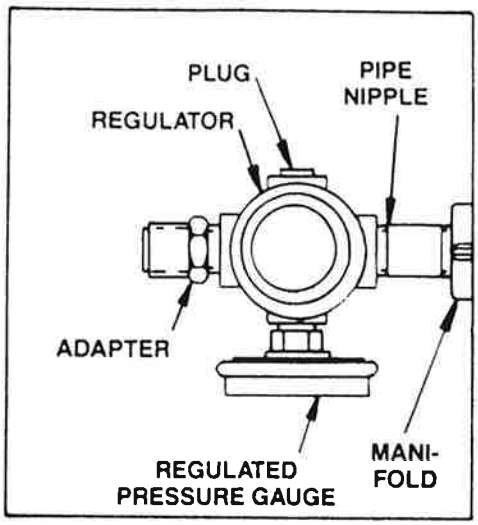
Installing Rubber Foot Strip and Wheels

1. Remove the protective paper strip from the adhesive-backed rubber foot strip. Attach the rubber foot strip to the bottom of the air tank leg. Press firmly into place.
2. The leg bracket on the underside of the air compressor tank has 2 holes on each side for mounting the wheels. Place one shoulder bolt through the hole in a wheel. Next, push the bolt through the **LOWER** hole of the leg bracket and screw on one hex locking nut. Tighten securely. Repeat for other wheel.

Installing Regulator

(not included with Models 919.176840 and 919.176940)

(Top View)



NOTE

Use a small amount of pipe thread sealant (not supplied) on all pipe thread joints. Install the regulator on the end of the manifold using the short pipe nipple. The arrow on the bottom of the regulator must point away from the manifold in order for the regulator to function properly. Next, install the gauge, adapter and plug in the regulator. The plug is supplied with the regulator.

INSTALLATION AND BREAK-IN PROCEDURES

Location of the Air Compressor

Operate the air compressor in a clean, dry and well ventilated area. The air filter must be kept clear of obstructions which could reduce air delivery of the air compressor. The air compressor should be located at least 12" away from walls or other obstructions that could interfere with the flow of air through the fan bladed flywheel. The air compressor crankcase and head are designed with fins to provide proper cooling.

If humidity is high, a Sears air filter can be installed on the air outlet adapter to remove excessive moisture, and oil vapor from the air. Closely follow the instructions packaged with the filter for proper installation. It must be installed as close as possible to the accessory.

Extension Cords

To avoid voltage drop and power loss to the motor, use extra air hose instead of an extension cord.

If an extension cord *must* be used:

- use only a 3-wire extension cord that has a 3-blade grounding plug and a 3-slot receptacle that will accept the plug on the product.
- make sure the extension cord is in good condition.
- the extension cord should be no longer than 50 feet.
- the minimum wire size is 12 gauge (AWG). Sears #9-83606, 12 gauge × 50' extension cord is available at your local Sears Service Center. (Wire size increases as gauge number decreases. 10 AWG and 8 AWG may also be used. DO NOT USE 14 AWG or 16 AWG.)

Lubrication and Oil

CAUTION

Compressors are shipped without oil. Do not attempt to operate this air compressor without first adding oil to the crankcase.

Place unit on a level surface. Remove oil fill plug (Key no. 77, pg. 15) and slowly add a special compressor oil such as Sears 9-16426 or SAE 20-20W SF (non-detergent preferred) motor oil until it is even with the top of the oil fill hole. (It must not be allowed to be lower than 3/8" – 6 threads down – from the top, at any time.) When filling the crankcase, the oil flows very slowly. If the oil is added too quickly, it will overflow and appear to be full. Crankcase oil capacity is 16 fluid ounces. Under winter-type conditions use SAE 10W oil. Multi-viscosity oil, 10W 30, will leave carbon deposits on critical components reducing performance and compressor life. Replace oil fill plug.

Grounding Instructions

WARNING

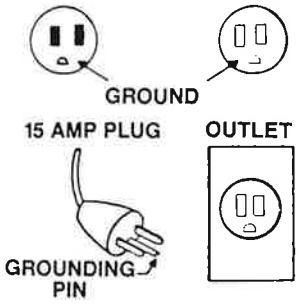
IMPROPER GROUNDING CAN RESULT IN ELECTRICAL SHOCK. IN THE EVENT OF A SHORT CIRCUIT, GROUNDING REDUCES THE RISK OF SHOCK BY PROVIDING AN ESCAPE WIRE FOR THE ELECTRIC CURRENT. THIS AIR COMPRESSOR MUST BE PROPERLY GROUNDED.

1. The air compressor is equipped with a cord having a grounding wire and an appropriate grounding plug. The plug must be used with an outlet that has been installed and grounded in accordance with all local codes and ordinances. The outlet must have the same configuration as the plug. DO NOT USE AN ADAPTER.
2. Do not modify the plug that has been provided. If it does not fit the available outlet, the correct outlet should be installed by a qualified electrician.
3. Inspect the plug and cord before each use. Do not use if there are signs of damage.

⚠ DANGER

ELECTRICAL SHOCK HAZARD. WHEN REPAIRING OR REPLACING THE CORD OR PLUG, KEEP THE GROUNDING WIRE SEPARATE FROM THE CURRENT-CARRYING WIRES. NEVER CONNECT THE GROUNDING WIRE TO A FLAT BLADE PLUG TERMINAL. (THE GROUNDING WIRE HAS INSULATION WITH AN OUTER SURFACE THAT IS GREEN – WITH OR WITHOUT YELLOW STRIPES.)

If these grounding instructions are not completely understood, or if you are not sure your compressor is properly grounded, have the installation checked by a qualified electrician.



Break-in Procedures

CAUTION

Serious damage may result if the following break-in instructions are not closely followed.

This procedure is required only once, before the air compressor is put into service.

1. Set the pressure switch lever to the "OFF" position.
2. Plug the power cord into the correct branch circuit receptacle.
3. Turn the regulator clockwise opening it fully, to prevent air pressure build-up in the tank.
4. Move the pressure switch lever to "ON/AUTO". The compressor will start.
5. Run the compressor for 30 minutes. Make sure the regulator is open and there is no tank pressure build-up.
6. After 30 minutes, close the regulator by turning it counter-clockwise. The air receiver will fill to cut-out pressure and the motor will stop. The compressor is now ready for use.

OPERATING PROCEDURES

1. Before attaching an air hose or accessory, make sure the pressure switch lever is in the "OFF" position. Close the air regulator outlet by turning it counter-clockwise.
2. Attach hose and accessory.

WARNING

TOO MUCH AIR PRESSURE CAUSES A HAZARDOUS RISK OF BURSTING. CAREFULLY FOLLOW STEPS 3 THROUGH 12 EACH TIME THE COMPRESSOR IS USED.

3. Check the manufacturer's maximum pressure rating for air tools and accessories. The regulator outlet pressure must never exceed the maximum pressure rating.
4. Turn the pressure switch lever to the "ON-AUTO" position and allow tank pressure to build. The motor will stop when tank pressure reaches cut-out pressure.
5. Open the regulator by turning it clockwise. Adjust the regulator to the correct pressure setting. (See pg. 6 for regulator instructions.) Your outfit is ready for use.

When You Are Finished:

6. Set the pressure switch lever to "OFF".
7. Turn the regulator counter-clockwise and set the outlet pressure to zero.
8. Remove the air tool or accessory.
9. Open the regulator and allow the air to slowly bleed from the tank. Close the regulator when tank pressure is approximately 20 psi.
10. Drain water from air tank.

WARNING

WATER WILL CONDENSE IN THE AIR TANK. IF NOT DRAINED, WATER WILL CORRODE AND WEAKEN THE AIR TANK; CAUSING A RISK OF AIR TANK RUPTURE.

11. With tank pressure at approximately 20 psi., open the drain cock and allow moisture to drain. Turn drain T-handle counterclockwise to open.

NOTE

If the drain cock valve is plugged, release all air pressure. The valve can then be removed, cleaned, and reinstalled.

12. After the water has been drained, close the drain cock (turn clockwise). The air compressor can now be stored.

MAINTENANCE

WARNING

UNIT CYCLES AUTOMATICALLY WHEN POWER IS ON. WHEN DOING MAINTENANCE, YOU MAY BE EXPOSED TO VOLTAGE SOURCES, COMPRESSED AIR OR MOVING PARTS. PERSONAL INJURIES CAN OCCUR. BEFORE PERFORMING MAINTENANCE OR REPAIR UNPLUG THE UNIT AND BLEED OFF ALL AIR TANK PRESSURE. NEVER OPERATE THE UNIT WITH THE BELT GUARD REMOVED.

Air Compressor

A clean air compressor runs cooler and provides longer service. Clean or blow off fins and any other parts of the air compressor that collect dust or dirt. Do not place rags, containers or other material on or against the ventilation openings in the belt guard. Adequate ventilation is necessary to maintain proper air compressor operating temperature.

Air Filter – Inspection and Replacement

NOTE

Keep the air filter clean at all times. Do not operate the compressor with the air filter removed.

A dirty air filter will not allow the compressor to operate at full capacity. Before you use the compressor, check the air filter to be sure it is clean.

If it is dirty, replace it with a new filter. The filter may be removed by using a pair of needle nosed pliers or a screwdriver. Pull or pry out the old filter. Push in the new air filter.

Oil – Checking and Changing

CAUTION

Overfilling with oil will cause premature compressor failure. Do not overfill.

Check oil level in the crankcase daily. Remove the oil fill plug (Key no. 77, pg. 15). The oil level should be even with the top of the fill hole and must not be allowed to be lower than 3/8" from the top (6 threads) at any time. It is recommended that the oil be changed after every 100 hours of operation. To drain the oil, remove the oil drain plug and collect the oil in a suitable container. Be sure to replace the plug securely before adding new oil. Use a special compressor oil such as Sears 9-16426 or SAE 20-20W SF (non-detergent preferred) motor oil. (Crankcase oil capacity is 16 fluid ounces.) Under extreme winter conditions use SAE 10W. Multi-viscosity oil (10W30) will leave carbon deposits on critical components which will reduce performance and compressor life.

Check Valve – Replacement

1. Release air pressure from the air tank.
2. Loosen the top and bottom tube nuts and remove the outlet tube.
3. Unscrew the check valve (turn counter-clockwise) using socket wrench.
4. Check that the valve disc moves freely and that the spring holds the disc in the upper, closed position. The check valve may be cleaned with a solvent.
5. Apply sealant to the check valve threads. Reinstall the check valve (turn clockwise). Do not over tighten.
6. Replace the outlet tube and tighten top and bottom tube nuts.

Safety Valve – Inspection

WARNING

IF THE SAFETY VALVE DOES NOT WORK PROPERLY OVER-PRESSURIZATION MAY OCCUR, CAUSING AIR TANK RUPTURE OR EXPLOSION. OCCASIONALLY PULL THE RING ON THE SAFETY VALVE TO MAKE SURE THAT THE SAFETY VALVE OPERATES FREELY. IF THE VALVE IS STUCK OR DOES NOT OPERATE SMOOTHLY, IT MUST BE REPLACED WITH A VALVE HAVING THE SAME PRESSURE RATING.

Motor

The motor has a manual thermal overload protector. If the motor overheats for any reason, the overload protector will shut off the motor. The motor must be allowed to cool down before restarting. Turn the unit off. To restart, depress the red reset button located on the end of the motor and turn the unit on.

NOTE

If the overload protector shuts the motor off frequently, check for a possible voltage problem. Low voltage can also be suspected when:

1. the motor does not get up to full power or speed;
2. fuses blow out when the motor is started.
3. lights dim when motor is started, and remain dim while it is running.

Belt – Replacement

WARNING

SERIOUS INJURY OR DAMAGE MAY OCCUR IF PARTS OF THE BODY OR LOOSE ITEMS GET CAUGHT IN MOVING PARTS. NEVER OPERATE THE OUTFIT WITH THE BELT GUARD REMOVED. THE BELT GUARD SHOULD BE REMOVED ONLY WHEN THE COMPRESSOR IS UNPLUGGED.

To Replace Belt:

1. Unplug compressor.
2. Remove the front of the belt guard by disengaging the snaps. Insert a flat bladed screwdriver at each snap location and pry the beltguard apart.
3. The motor is mounted on a special base. By loosening the wing nut at the motor hold down plate, the motor can be tilted to allow for easy removal of the belt.
4. Remove belt and replace.

NOTE

The belt must be centered over the grooves on the flywheel and motor pulley.

5. Tighten the wing nut until it makes contact with the washer plus one additional turn.
6. Replace the front of the beltguard.

To Adjust Belt Tension:

1. To LOOSEN the belt tension turn the wing nut COUNTERCLOCKWISE in ¼ turn increments.
2. To TIGHTEN the belt tension turn the wing nut CLOCKWISE in ¼ turn increments.

Pulley and Flywheel – Alignment

The compressor flywheel and motor pulley grooves must be in-line (in the same plane) within 1/32" to assure belt alignment within sheave grooves. To check alignment, disconnect electrical power and remove the beltguard. Place a straightedge against the outside of the flywheel and measure the distance from it to the nearest groove. Alignment is achieved when the other end of the straightedge is within 1/32" of the measured dimension at the pulley grooves.

STORAGE

Before You Store The Air Compressor:

1. Review the "Maintenance" section on the preceding pages and perform maintenance as necessary. Drain the water from the air tank.
2. Set the OFF/AUTO switch to the "OFF" position, and unplug the unit.
3. Remove the air tool or accessory.
4. Protect the electrical cord and air hose from damage (such as being stepped on or run over). Wind them loosely around the outfit handle.
5. Store the compressor in a clean and dry location.

TROUBLESHOOTING GUIDE

WARNING

PERFORMING REPAIRS MAY EXPOSE VOLTAGE SOURCES, MOVING PARTS, OR COMPRESSED AIR SOURCES. PERSONAL INJURY MAY OCCUR. PRIOR TO ATTEMPTING ANY REPAIRS THE COMPRESSOR MUST BE UNPLUGGED.

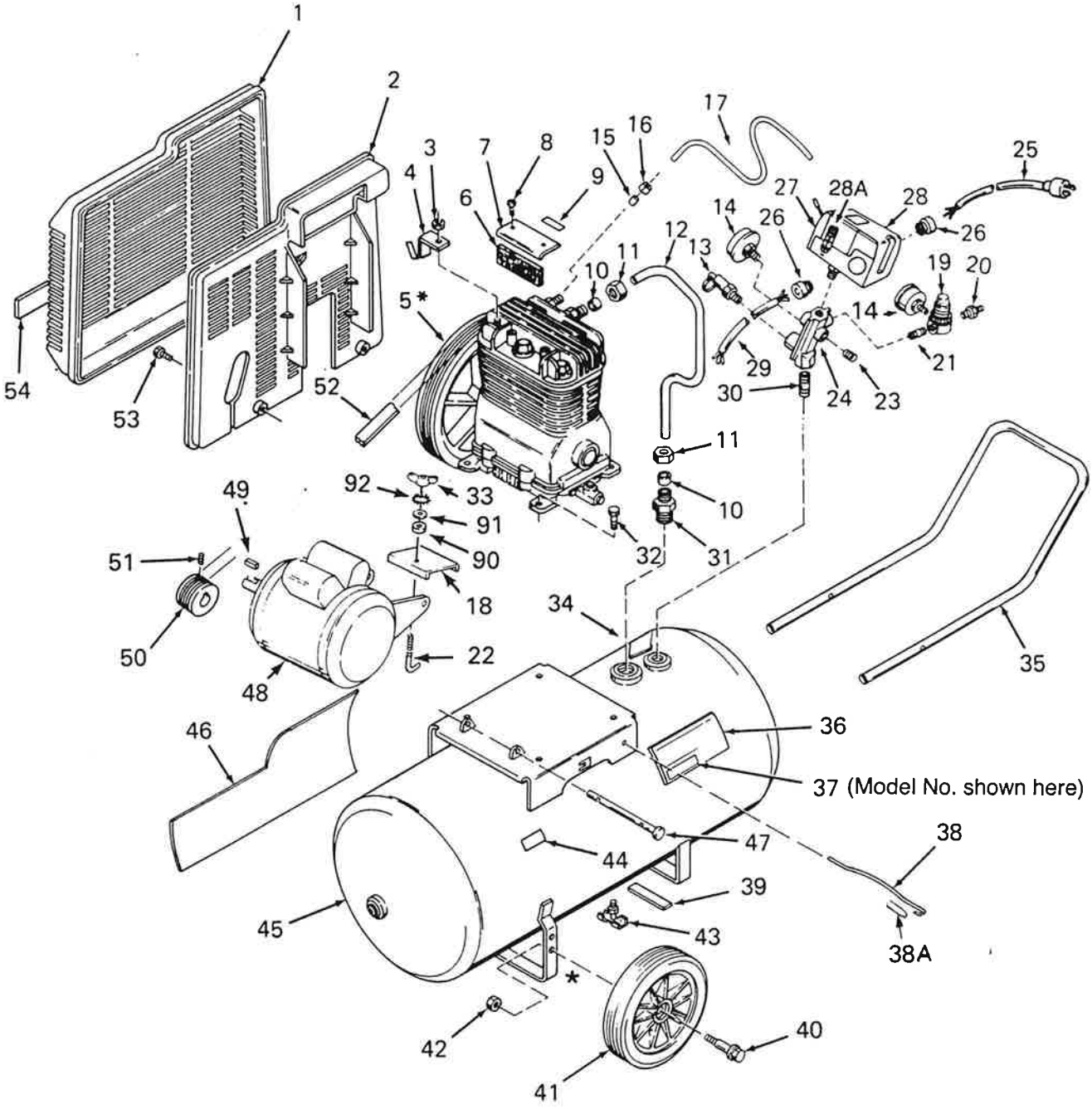
PROBLEM	CAUSE	CORRECTION
Excessive tank pressure – safety valve pops off.	Pressure switch does not shut off motor when compressor reaches "cut-out" pressure.	Move the pressure switch lever to the "OFF" position. If the outfit doesn't shut off, and the electrical contacts are welded together, replace the pressure switch. If the contacts are good, check to see if the pin in the bottom of the pressure relief valve is stuck. If it does not move freely, replace the valve.
	Pressure switch "cut-out" too high.	Replace pressure switch.
Air leaks at fittings	Tube fittings are not tight enough.	Tighten fittings where air can be heard escaping. Check fittings under soapy water solution. DO NOT OVER-TIGHTEN.

PROBLEM	CAUSE	CORRECTION
Air leaks at check valve	Defective or dirty check valve.	A defective check valve results in a constant air leak at the pressure release valve when there is pressure in the tank and the compressor is shut off. Remove and clean or replace check valve. DO NOT OVER-TIGHTEN.
Air leaks at pressure switch release valve	Defective pressure switch release valve.	Remove and replace the release valve.
	Defective check valve.	A defective check valve results in a constant air leak at the pressure release valve when there is pressure in the tank and the compressor is shut off. Remove and clean or replace check valve. DO NOT OVER-TIGHTEN.
Air leaks in air tank	Defective air tank.	Air tank must be replaced. Do not repair the leak. **WARNING** **DO NOT DRILL INTO, WELD, OR OTHERWISE MODIFY AIR TANK OR IT WILL WEAKEN.**
Air leaks from safety valve	Possible defect in safety valve	Operate safety valve manually by pulling on ring. If valve still leaks, it should be replaced.
Compressor is not supplying enough air to operate accessories.	Prolonged excessive use of air.	Decrease amount of air usage.
	Compressor is not large enough for air requirement.	Check the accessory air requirement. If it is higher than the CFM or pressure supplied by your air compressor, you need a larger compressor.
	Restricted air intake filter.	Clean or replace air intake filter.
	Hole in hose.	Check and replace if required.
	Check valve restricted.	Remove and clean or replace.
	Air leaks.	Tighten fittings. (See Air Leaks section of Troubleshooting Guide.)
Regulator knob – continuous air leak. Regulator will not shut-off at air outlet.	Dirty or damaged regulator internal parts.	Clean or replace regulator.
Knocking noise	Defective check valve.	Remove and clean or replace.
	Loose pulley.	Tighten pulley set screw.
	Low oil level.	Maintain prescribed oil level. Add oil.
	Loose flywheel.	Tighten screw. 15 to 20 ft. lbs.
	Loose compressor mounting screws.	Check screws. Tighten as required.
	Loose belt.	Tighten wing nut on motor mount until it contacts the washer, plus one more turn.
	Carbon build up.	Remove the head and valve plate. Clean the valve plate and the top of the piston. (Be sure carbon does not fall into the cylinder.) Reassemble using new gaskets and torque screws, 25 to 30 ft. lbs.

PROBLEM	CAUSE	CORRECTION
Excessive belt wear	Loose belt.	Adjust tension. See Belt Replacement, pg. 11.
	Tight belt.	Adjust tension. See Belt Replacement, pg. 11.
	Loose pulley.	Check for worn keyway or pulley bore. Also check bent motor shaft. Replace parts if necessary.
	Pulley misalignment.	Motor pulley and flywheel must be in line within 1/32".
Squealing sound	Loose belt.	Adjust tension. See Belt Replacement, pg. 11.
	There is no oil in the compressor.	Add oil.
Motor will not run	Motor overload protection switch has tripped.	Let motor cool off and reset switch by pressing the red button located on the end of the motor.
	Tank pressure exceeds pressure switch "cut-in" pressure.	Motor will start automatically when tank pressure drops below "cut-in" pressure of pressure switch.
	Wrong gauge wire or length of extension cord.	Check for proper gauge wire and cord length.
	Check valve stuck open.	Remove and clean or replace. DO NOT OVER-TIGHTEN.
	Loose electrical connections.	Check wiring connection inside pressure switch and motor terminal box area.
	Possible defective capacitor.	Return to Sears Service Center for inspection or replacement if necessary.
	Possible defective motor.	Have checked at a local Sears Service Center.
	Fuse blown, circuit breaker tripped.	1. Check fuse box for blown fuse and replace if necessary. Re-set circuit breaker. Do not use a fuse or circuit breaker with higher rating than that specified for your particular branch circuit. 2. Check for proper fuse; only Buss Fusetron Type "T" fuses are acceptable. 3. Check for low voltage conditions and/or proper extension cord. 4. Remove check valve and clean or replace if it is stuck open or closed. 5. Disconnect the other electrical appliances from circuit or operate the compressor on its own branch circuit.
	Pressure release valve on pressure switch has not unloaded head pressure.	Bleed the line by pushing the lever on the pressure switch to the "OFF" position; if valve does not open, replace it.
Pressure reading on the regulated pressure gauge drops when an accessory is used.	It is normal for "some" pressure drop to occur.	If there is an excessive amount of pressure drop when the accessory is used, adjust the regulator following the instructions on pg. 7. **Note** Adjust the regulated pressure under flow conditions (while the accessory is being used).

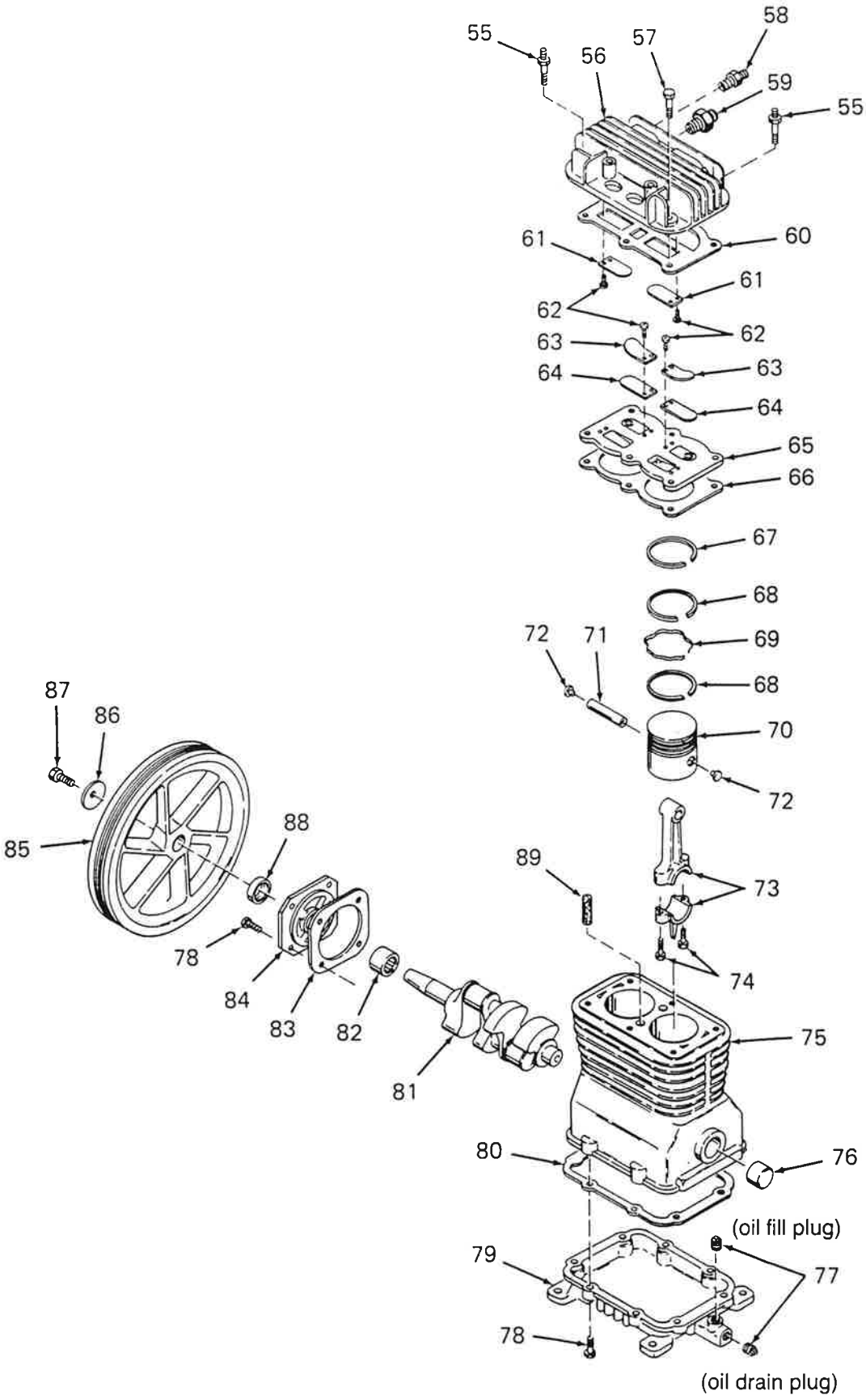
AIR COMPRESSOR DIAGRAM

(view from back)



*(See pg. 8, Step 5 for proper wheel placement and assembly)

COMPRESSOR PUMP DIAGRAM



	51	SS-391	Set screw
	52	C-BT-222	Poly-V-Belt, 38″ long
	53	SSF-986	Self-tapping screw (2 used)
	54	LA-1928	Label (Models 919.176210 and 919.176220)
		LA-1931	Label (Models 919.176730 and 919.176830)
	55	SSF-6627	Stud 3/8″ x 16 both ends (2 used)
	56	CAC-293	Head
	57	SSF-955	Screw, 3/8-16 x 1-1/2″ (4 used)
	58	SS-8553	Adapter
	59	SSP-9401	Adapter
✔	60	CAC-291	Head gasket
●	61	265-25	Intake flapper valve - square corners (2 used on head)
	62	SSF-9821	Screw #5-40 × ¼″ (8 used)
	63	CAC-294	Restrictor plate (2 used)
●	64	265-196	Exhaust flapper valve - beveled corners (2 used on valve plate)
	65	CAC-289	Valve plate
✔	66	265-28-2	Valve plate gasket (Models 919.176210 and 919.176220)
		CAC-54-1	Valve plate gasket (Models 919.176730 and 919.176830)
✚	67	265-195-1	Compression ring (2 used) (Models 919.176120 and 919.176220) Install in top piston groove only.
		CAC-56	Compression ring (4 used) (Models 919.176730 and 919.176830)
✚	68	265-191-1	Oil ring (4 used) (Models 919.176120 and 919.176220)
		CAC-58	Oil ring (4 used) (Models 919.176730 and 919.176830)
✚	69	265-192-1	Oil ring expander (2 used) (Models 919.176120 and 919.176220)
		CAC-57	Oil ring expander (2 used) (Models 919.176730 and 919.176830)
	70	265-15	Piston (2 used) (Models 919.176120 and 919.176220)
		CAC-55	Piston (2 used) (Models 919.176730 and 919.176830)
	71	265-19	Piston pin (2 used)
	72	CAC-207	Piston pin plug (4 used)
	73	265-410	Connecting rod assembly (2 used) Includes two SSF-927 screws.
	74	SSF-927	Screw, 1/4-20 x 1-1/8″ (4 used)
	75	265-4-1	Crankcase and cylinder (Models 919.176210 and 919.176220)
		CAC-51	Crankcase and cylinder (Models 919.176730 and 919.176830)
	76	265-41	Needle bearing
	77	SSP-1413	Pipe plug (2 used)
	78	SSF-925	Screw, 1/4-20 x 7/8″ (12 used)
	79	265-3	Base
✔	80	265-16	Base gasket
	81	CAC-373	Crankshaft
	82	265-23	Needle bearing
✔	83	265-13	End plate gasket
	84	265-9	End Plate
	85	265-2	Flywheel
	86	SSN-1014-ZN	Belleville washer
	87	STD523107	Cap screw
✔	88	265-111	Seal
✔	89	265-6	Vent filter
	90	CAC-1011	Elastomer spring
	91	SSN-56-ZN	Flat washer
	92	SSN-1619-ZN	Lock washer
			NOT ILLUSTRATED
		9-16269	Air chuck
		9-16163	Air hose assembly (1/4″ I.D. x 15′)

✚ Key No. 67, 68 and 69, only available in Ring Kit KK-4209 (Models 919.176120 and 919.176220) and Kit KK-4313 (Models 919.176730 and 919.176830)

✔ Key No. 6, 60, 66, 80, 83, 88 and 89, available as individual parts and part of Gasket Kit KK-4268-2 (Models 919.176120 and 919.176220) and Kit KK-4312-2 (Model 919.176730 and 919.176830).

● Key No. 61, 62 and 64, only available in Valve Kit KK-4275.

PARTS LIST

KEY NO.	PART NUMBER	DESCRIPTION
1	CAC-322	Belt guard, outside
2	CAC-323	Belt guard, inside
3	SSF-8113-ZN	Lock nut
4	CAC-327	Bracket
5	CAC-4014-1	Compressor pump assembly (Models 919.176120 and 919.176220) Includes Key No. 55 through 89 inclusive.
	CAC-4003-1	Compressor pump assembly (Models 919.176730 and 919.176830) Includes Key No. 55 through 89 inclusive.
✔ 6	9-16279	Intake filter - package of 2 (1 used)
7	265-18	Filter retainer
8	SSF-935	Screw, #8-32 x 3/8" (2 used)
9	LA-1779	Hot Surface Label (2 used on model 919.176830)
10	STD575051	Ferrule (2 used for 1/2" O.D. Tube)
11	STD575050	Nut (2 used for 1/2" O.D. Tube)
12	CAC-317	Outlet tube
13	TIA-4325	Safety valve (models 919.176120 and 919.176730)
	TIA-4125	Safety valve (models 919.176220 and 919.176830)
14	C-GA-329	Pressure gauge (2 used)
15	STD575026	Ferrule (2 used for 1/4" O.D. Tube)
16	STD575025	Nut (2 used for 1/4" O.D. Tube)
17	CAC-387	Pressure release tube
18	CAC-1012	Hold down plate
19	CAC-487	Pressure regulator
20	H-2099	Adapter
21	SS-2071	Nipple
22	CAC-1013	Hold down screw
23	SS-3222-CD	Pipe plug
24	CAC-366	Manifold
25	SUDL-403-1	Cord assembly
26	SSW-7367	Strain relief (2 used)
27	LA-1531-1	Label
28	CAC-4220-1	Pressure switch
28A	KK-4315	Pressure release valve and mounting nut (Included with #28)
29	CAC-4215-1	Motor cord assembly
30	SS-1287	Nipple
31	CAC-437	Check valve
32	SSF-928	Screw 5/16"-18 x 7/8" (4 used)
33	STD-541631	Wing nut
33A	CAC-382	Spacer
34	LA-1535	Warning label
35	CAC-320	Handle
36	LA-1814	Periodic maintenance label
37	LA-1929	Specification label (Model 919.176120)
	LA-1930	Specification label (Model 919.176220)
	LA-1932	Specification label (Model 919.176730)
	LA-1933	Specification label (Model 919.176830)
38	CAC-363	Retaining wire
39	SUDL-6-1	Rubber foot strip
40	CAC-60	Shoulder bolt (2 used)
41	CAC-374	8" wheel (2 used)
42	STD541437	Lock nut (2 used)
43	SS-2707	Drain cock
44	Not Available	Code number label
45	TA-4099	Air tank, 20 gallon (Models 919.176120 and 919.176730)
	TA-4072	Air tank, 20 gallon ASME (Models 919.176220 and 919.176830)
46	LA-1811-1	Sears Craftsman label
47	CAC-287	Pivot pin
48	MO-6226	Motor, 2 HP (Models 919.176120 and 919.176220)
	MO-6340	Motor, 3 HP (Models 919.176730 and 919.176830)
49	STD580104	Motor shaft key (3/16" x 3/16" x 1¼")
50	C-PU-2872	Motor pulley (Models 919.176120 and 919.176220)
	C-PU-2865	Motor pulley (Models 919.176730 and 919.176830)